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October 1, 1984

RG:0058

Director, Department of Planning
and Economic Development
Attention: Planning Division
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Sir:

Draft Waimanu National Estuarine
Sanctuary Management Plan
Waimanu Valley, Hawaii

The Waimanu Sanctuary for which this management plan is being prepared covers an area of approximately 5,900 acres of the northeastern side of the Island of Hawaii. The main purpose of the sanctuary is to provide a natural field laboratory for preservation and study. The major goals are to protect the natural resources of the sanctuary, to provide opportunities for scientific and educational programs that could improve the information necessary for coastal management decision making, to promote federal-state cooperation in the management of estuarine areas, and to enhance public awareness and understanding of the estuarine environment.

The Environmental Center has been assisted in the review of this draft management plan by James Parrish, Hawaii Cooperative Fishery Research Unit; Sheila Conant, General Science; Alison Kay, Zoology; Anne Orcutt, Marine Option Program; Frisbee Campbell, Hawaii Institute of Geophysics; Matthew Spriggs, Anthropology; Charles Lamoureux, Botany; and Jacquelin Miller, Lee Hannah and Antonio De Oteyza, Environmental Center.

The reviewers considered the draft plan for the Waimanu Sanctuary, and the purpose and goals set for it, to be well thought out. However, concern was expressed for the future of the plan considering the modest finances available for its implementation.

Location of the sanctuary

The two major purposes of the plan are preservation and study. The location of the sanctuary plays an important role in relation to these purposes. The lack of easy access serves to protect and thus preserve the natural characteristics of the valley. The isolation will thus be advantageous to some types of research, but the relative difficulty of access will also somewhat hinder and increase the cost of research. (Additional comments on research costs will be made in the "Research Program" part of this review.)

Schedule and Finances

The finances for the management of the sanctuary appear to be the central issue for the success of the project. We acknowledge the many different potential sources of funding and alternatives that are mentioned in the draft. It would be helpful if specific commitments by the State could be confirmed prior to the submission of the final management plan and thus substantiate the potential for its actual implementation. The relatively modest budget allocations of \$50,000 per year from NOAA must be considered a minimum base, and every effort should be made to ensure additional state monies.

The proposal to hire only a "part-time" manager/researcher/administrator/enforcer seems unwise. A strong, fulltime effort and commitment of managerial skills and resources will be required to guarantee the success of the project. In addition to the managerial responsibilities, the manager will need to disseminate information regarding the sanctuary to potential researchers and the public and thus encourage additional support and effective public participation for the sanctuary. To carry out all these tasks effectively, the services of a fulltime manager seem necessary.

The preparers of the draft plan are to be commended for including the detailed budget presented in Table 4. It is refreshing to see such specificity in a draft management plan, and the detail greatly facilitates evaluation of the plan by reviewers. We do, however, offer the following suggested modifications for your consideration:

1. Land acquisition

Consulting Services

Special consideration should be given to the timely acquisition of lands within the valley owned by the Department of Hawaiian Home Lands (DHHL). This agency owns over 200 acres that are of considerable importance to the development of the sanctuary (DMP, page 35). Definite plans for the acquisition should be adopted as soon as possible. The acquisition represents an additional cost which has not been accounted for in the budgeted expenses.

It is recommended (page 38) that the services of a land planner, appraiser, and an economist be retained to:

- identify state lands which would be of appropriate value and available for exchange with the lands of DHHL and possibly others;
- determine the value and/or lease rent of conservation easements; and
- identify services and their value which the state can offer to DHHL to pay for any short-term conservation easement which may be negotiated.

To accomplish these tasks a two year budget of \$18,000 is allocated.

We would suggest that consideration be given to addressing these issues "in house" through either county or state agencies. It would seem that initial evaluations could be made by existing government personnel, and that such services could be identified as components of the federally required "matching services in kind" to be provided by the state.

2. Use Management

a) Manager/research administrator/enforcer (part-time)

It appears that the salary being proposed for the manager's position would allow for employment ranging from 1/4-time to a maximum of 1/2-time. As we have mentioned previously, we consider this to be an insufficient time allotment to expect someone to reasonably accomplish the desired tasks. We would strongly urge consideration of transfer of funds from the consulting services category to the manager's position.

b) Vehicle with communications (partial use)

A total of \$20,000 (4000/year) has been allocated for the "partial use" of a vehicle with communications. This seems unreasonably high. Given the minimal budget to begin with and the recognized only "partial use" it would appear wise to consider either rental/leasing alternatives or the sharing of the vehicles costs/use with another agency or private firm (if that has not been already assumed in the budget cost). Have these alternatives been considered?

c) Management plan update

The update of the management plan during the fifth year is an appropriate activity. However, it might be better to give the manager of the sanctuary the responsibility for the activity and thus the \$7,500 additional salary allocated to the plan or whatever remains less publication costs.

Research Program

The dollar amounts to be directed to the various suggested research programs are not clearly defined. It would be useful in the final plan to provide more detail on the specific research projects that will be undertaken and the rationale for their selection and the use of the monies that will be needed so that the reader has a better understanding of how the research dollar values in the budget are derived.

We do not see the need for revising the research plan in the fifth year of the development period. An evaluation of the research activities that have taken place and their inclusion as part of the general plan management update would be sufficient and less costly.

Coordination of research studies within the sanctuary is essential to optimize management activities. Coordination should permit the sharing of common factor research information thus eliminating or at least reducing redundancy in the data collections and minimizing costs of field research in such an isolated environment.

The past influence of human activities on the ecology of the valley should not be overlooked. On page 53, under the subtitle of Archaeological, Cultural and Historical Resources a proposal is presented for the preparation of an oral history of the valley. Coordination of this project with the proposed ecological baseline studies could provide historic information for many disciplines on the interrelations of the environment with past human activities.

These interrelationships could in turn provide insight into solutions to certain management concerns or problems. For example, the feral pig problem is one of both ecological as well as societal concern if one considers the interests of the hunting community. It would be interesting to learn, via the oral history study, if the feral pig population was formerly kept under control at some level of hunting and if so what hunting effort would be required under present conditions to achieve an ecologically tolerable population. This assumes of course that there is some tolerable level to the ecological destruction feral pigs produce and that there is sufficient hunter interest. The possibility of having wild pigs harvested on a sustainable basis (with the setting of market outlets) by some or all of the remaining private land owners in the valley may be a better alternative than permitting outside hunters in to control the wild pig population.

The role and importance of wild pig hunting is well documented in many tropical societies of Asia, the Pacific and South America. If the baseline studies and the oral history of the Waimanu Valley confirm the past and the present potential importance of the feral pig resource, comparative studies with societies from the above mentioned areas of the world may enhance the knowledge of the polynesian and specifically Hawaiian way of life.

In response to your request for possible research studies we suggest that a comparison of the present opihi populations along the shore with the shells from the archaeological sites might be of interest. Such a comparison could provide information on the ancient societal use of the opihi, the population characteristics, and possibly paleoclimatology studies by comparing O^{18}/O^{16} ratios in age dated midden material with present populations.

Interpretive Program

Interpretive Center

The ongoing \$1000/year figure for maintaining the Interpretive Center seems low. If the manager has the overall responsibility and the \$1000 is for basic supplies such as brochures or correspondence it may be sufficient. If the \$1000 will also be applied to structural maintenance of any facility or structure then it seems likely to be inadequate.

Recommendations

There are a number of divisions (page 40-42) within DLNR that could reasonably be expected to assume the overall management responsibility. We would recommend that selection of the final management division should be delayed until after the initial inventory assessments. This would allow the type and values of the resources found in the area, and the interest and initiative demonstrated by the different divisions to be taken into consideration in the selection of the final management division.

We concur with the statement on page 40 that it is not necessary to have all management activities located within the same organizational division or unit. However, the coordination of all management activities is essential. Thus provision should be made in the management agreements to mandate inter- and intra-agency coordination.

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The recommendation presented on page 45 to amend the present administrative rules (DLNR Title 13, Chapter 4) "to allow permits to be issued for limited access by helicopter or boat" (page 45) is appropriate. However, the option presented on page 48 to allow "commercial" helicopter landings may be in conflict with the goals of the project.

The recommended suggestion (page 42) that the Natural Area Reserve System Commission (NARSC) should act as an advisory body for the sanctuary is appropriate. The NARSC should be consulted as soon as possible so as to assure their input in the early stages of planning and thus avoid duplication of research studies and assist in the coordination of activities carried out by researchers from different disciplines.

There are a number of corrections which need to be made in the species lists. We have indicated these directly in the enclosed plan document. We suggest that H. St. John's List and Summary of Flowering Plants in the Hawaiian Islands (1973) should be consulted in the future for plant names and origins.

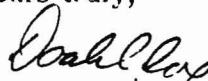
We see a need for more detailed maps in the final document. The location of nearby towns, access roads, trails, and potential sites for the interpretive center as well as detailed topography of the sanctuary would be very helpful. The inclusion of pictures should also be considered to illustrate the condition of the trails and the nearby shelter mentioned in the draft document.

In summary, we perceive that the ultimate success of the sanctuary in terms of preservation, research, public acceptance and participation will hinge greatly on the abilities of the designated manager. To attract the caliber of person necessary to meet the multiplistic talents required, strongly dictates a good salary and a fulltime commitment. We would urge that consideration be given to modifications of the budget to expand the manager's position to a fulltime status.

Some corrections and minor recommendations have been noted directly in the margins and text of the draft document (attached).

We appreciate the opportunity to comment on this draft. We hope you will find our comments to be useful in the development of the final version and look forward to reviewing the final plan.

Yours truly,



Doak C. Cox
Director

Enclosure

cc: OEQC
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